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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,114	09/20/2001	Donald V. Perino	RB1-035USC3	4507
29150	7590	01/20/2004	EXAMINER	
LEE & HAYES, PLLC 421 W. RIVERSIDE AVE, STE 500 SPOKANE, WA 99201			FIGUEROA, FELIX O	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/961,114

Applicant(s)

PERINO ET AL.

Examiner

Felix O. Figueroa

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 70-75, 77, 80-83, 85, 86 and 89-97 is/are pending in the application.
- 4a) Of the above claim(s) 89 and 90 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 70-75, 77, 80-83, 85, 86 and 91-97 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 89 and 90 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

This application contains claims 89 and 90 drawn to a non-elected invention. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 91, 95-97; 77, 80-83, 85 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo in view of Taniguchi et al. (US 5,451,815).

Bellomo discloses a chip package comprising: a packaging material (36 in Fig.5) having a first side; a lead (34) extending from a first side of the packaging material. Bellomo discloses substantially the claimed invention except for the flexible lead. Taniguchi teaches the use of compressible flexible leads (14, Fig.3) to enable a flexible mounting (col.3 lines 62-64). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the chip package of Bellomo with flexible leads, as taught by Taniguchi, to enable a flexible mounting.

Regarding claim 95, Bellomo shows the clip being integral with the packaging material.

Regarding claim 96, Bellomo shows the packaging material and the clip being attached to each other.

Regarding claim 97, see Figure in the section Response to Arguments.

Regarding claim 77, Bellomo discloses substantially the claimed invention except for the use of support pins. Taniguchi teaches a chip package (10) having support pins (12a-d) extending from the packaging material to provide vertical support the package. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to for the chip package of Bellomo having support pins extending from the packaging material, as taught by Taniguchi, to provide vertical support the package.

Regarding claim 80, Bellomo discloses substantially the claimed invention except for the specific material of the lead. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use beryllium-cooper as the preferred material in order to provide good conductivity, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claims 81-83, Bellomo discloses substantially the claimed invention except for the material of the packaging material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a flexible material, e.g. silicon rubber, as the preferred material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 85, Bellomo discloses an integrated circuit (38) disposed in the package material.

Regarding claim 86, Bellomo discloses the first and second clip portion being flexible.

Claims 70-75 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo and Taniguchi as discussed above and further in view of Cutchaw (US 4,293,175).

Bellomo, as modified, discloses substantially the claimed invention except for the flexible insert. Cutchaw teaches the use of a flexible insert (110) interposed between the lead (98a) and the first side of the packaging material (92a) to provide a flexible and aligned contact with the mating element. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the package of Bellomo, as modified, with a flexible insert interposed between the leads and the first side of the packaging material, as taught by Cutchaw, to provide a flexible and aligned contact with the mating element.

Regarding claim 71, Bellomo, as modified by Cutchaw, discloses substantially the claimed invention except for cylindrical shape. However, it would have been an obvious choice one having ordinary skill in the art to form the insert having a different shape, e.g. being cylindrical, since applicant has not disclosed that such shape solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with insert of Cutchaw.

Regarding claims 72 and 73, Cutchaw discloses the insert being of a compliant material, specifically an elastomer.

Regarding claims 74-75, Cutchaw discloses the lead having a substantially C-shape; and being compressible.

Claims 93 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bellomo, Taniguchi and Cutchaw as discussed above and further in view of Sonobe (US 4,636,022).

Bellomo, as modified, discloses substantially the claimed invention except for the indentation. Sonobe teaches the use of a package (10) having an indentation (see Fig.5), an end of the lead being disposed within the pocket when the lead is compressed, to protect the lead from external tampering. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the package of Bellomo having an indentation, as taught by Sonobe, to protect the lead from external tampering.

Response to Arguments

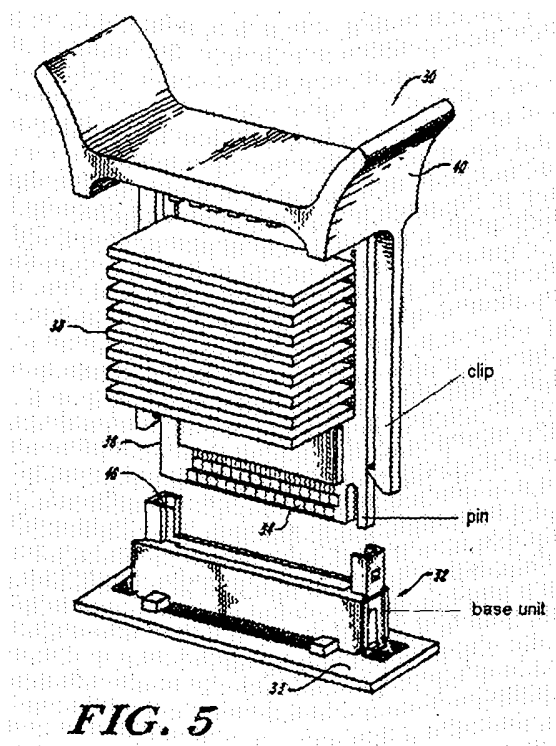
Applicant's arguments filed 11/03/03 have been fully considered but they are not persuasive.

In response to applicant's arguments that Bellomo does not teach a chip package, by contending that "the module is not itself a 'chip package' as recited", please note that Bellomo discloses (in col.4 line 24-26) that "[t]he module 36 includes a plurality of electronic circuits such as memory modules 38." Further, *The American Heritage® Dictionary of the English Language, Fourth Edition* defines "chip" as "[a]n integrated circuit", Copyright © 2000 by Houghton Mifflin Company. Thus, "the module" of Bellomo is a chip package comprising a packaging material having a first side.

In response to applicant's arguments that the lead shown by Bellomo is not "extending from the side of anything", please note that the leads (34) of Bellomo extend from a first side of the packaging material toward a second side, where the chips (38) are located.

In response to applicant's arguments that "Taniguchi does not teach compressible flexible leads" because "they are internal to the semiconductor device 10", please note that Figure 4 shows that the leads (14) extend outside of the device. Furthermore, Taniguchi discloses that the wiring lines / leads are bent (col.5 lines 44-48), thus showing that they are flexible.

In response to applicant's arguments that "the Office provides no location in Bellomo where such a 'clip' is discussed", please note that the clip is disclosed in Fig.5 of Bellomo, as subsequently shown.



Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

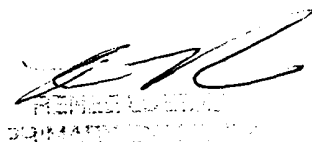
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (703) 308-0097. The examiner can normally be reached on Mon.-Fri., 8:00-5:00.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

ffr



FELIX O. FIGUEROA
PATENT EXAMINER